



## 3300 XL Proximity Transducer System raises the high bar on performance...again!

**Improved accuracy, smaller size, better temperature performance, and quicker installation**

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For over four decades, Bently Nevada has been providing proximity transducer systems for protecting and managing machinery. We've learned what it takes to build robust, reliable, and accurate transducers that can withstand harsh machinery environments. Our 3300 Proximity Transducer System is globally recognized as the preferred transducer for eddy current displacement measurements.

So, what did we do with this already superb product? We made it even better! The new 3300 XL Proximity Transducer System gives you all the things you told us you needed in an improved transducer system, yet it is backward compatible with all existing 3300 transducers you may already have!

In our quest to improve the system, our engineers investigated every part of it:

- The Proximitor® Sensor
- The Probe and Extension Cable
- The Proximitor Housing

The result? A superior product in every way.

### 3300 XL Proximitor® Sensor

The benefits of our new 3300 XL Proximitor Sensor include:

- Improved signal accuracy over API 670 temperature ranges, which gives you superior results even when components of the transducer system are operating at the temperature extremes (see Figures 1 and 2).
- Available with an option for convenient, high-density 35 mm DIN rail mounting, reducing the cost of installation.
- Improved immunity to Radio Frequency Interference (RFI), eliminating the need for metal housings to shield the Proximitor Sensors from RFI.
- Total compliance with the European CE requirements without needing solid conduit or metal Proximitor housings, further lowering installation costs.
- Clamping DIN-style SpringLoc terminal strips further reduce installation costs and provide a reliable connection without requiring special installation tools.
- Fully backward compatible (both mechanically and electrically interchangeable) with our 3300 5 mm & 8 mm Proximity Transducer System components and

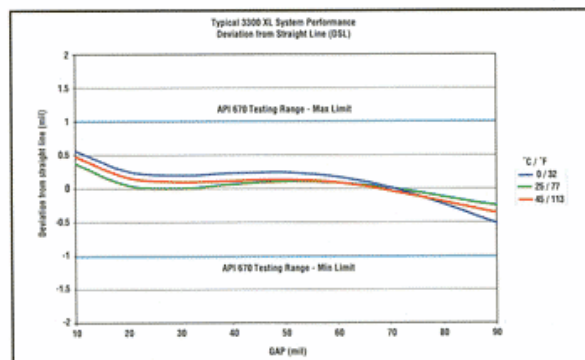


Figure 1. Deviation from straight line of 3300 XL System.

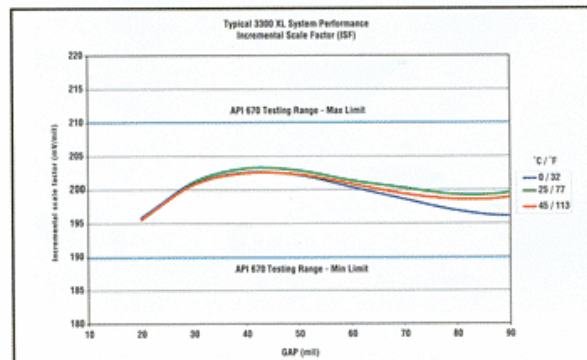


Figure 2. Incremental scale factor of 3300 XL System.

our industry-standard monitoring and diagnostic systems.

The 3300 XL Proximity Transducer System provides greater accuracy than ever before. The transducer signal is more stable than our previous transducer system over the extended temperature ranges specified in API 670, which outlines performance standards for vibration and thrust position monitoring. This increased accuracy provides you with more consistent vibration and axial position readings for machine startups, acceptance testing, and continuous online operations. The improved accuracy also reduces errors associated with interchangeability of transducer system components.

RFI can be a problem when wireless communications are conducted near an unshielded Proximitor Sensor. The 3300 XL Proximitor Sensor is specifically designed to minimize the effects of RFI. This circuitry ensures excellent signal integrity, producing a reliable signal even when RFI is present.

Although external housings are no longer required to shield the Proximitor Sensor from RFI, they are still necessary in many installations to protect the Proximitor Sensors from the environment. The small size of the 3300 XL Proximitor Sensor, however, allows you to mount up to twice as many Proximitor Sensors in the same housing or other mounting area by simply using a standard 35 mm DIN rail. By mounting more Proximitor Sensors in each housing, you can use fewer housings. Fewer housings also means fewer conduit connections.

The DIN rail feature and SpringLoc terminal strip save installation time. You can mount Proximitor Sensors with a simple "snap" onto the rail rather than using four screws to panel mount them. Inserting field wiring into the SpringLoc terminal strips is quick and efficient. Spending less time installing Proximitor Sensors and using fewer housings can result in *significant savings!*

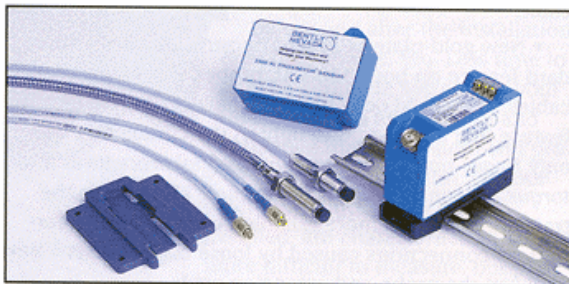
The 3300 XL Proximitor Sensor also comes in a traditional panel mount version. The Proximitor Sensor slides into a mounting pad with the same hole pattern as our previous 3300 Proximitor Sensors. This makes it easy to replace existing 3300 Proximitor Sensors when upgrading existing installations.

The 3300 XL Proximitor Transducer System meets European CE requirements without the use of solid conduit or metal housings. This means that you are able to route armored extension cable and field wiring in open cable trays and still meet strict CE emissions and susceptibility requirements when connected to a 3500 Monitoring System.

Although the 3300 XL Proximitor Sensor is electrical-ly and mechanically interchangeable with the 3300 Proximitor Sensor, it looks significantly different. Consequently, we gave the 3300 XL Proximitor Sensor its own unique part number. We will still continue to offer the 3300 Proximitor Sensor; however, we strongly recommend using the 3300 XL Proximitor Sensor, due to its better overall performance.

#### New Calibration Device

The 3300 XL Precision Spindle Micrometer is the calibration device used to verify the transducer system's high accuracy. It should be used for any acceptance testing or for testing to API 670 specifications. It contains a precision micrometer, a highly accurate AISI 4140 steel target, and a probe mounting accessory.



#### 3300 XL 8 mm Proximity Probe and Extension Cable

For the past eight years, we have produced hundreds of thousands of reliable 3300 8 mm Proximity Probes. During that time, a high percentage of these probes have been installed in extremely harsh environments. We have gathered a great deal of data from our customers and service personnel regarding 3300 proximity probes. Based on your input, we have developed the new 3300 XL 8 mm Proximity Probe and Extension Cable. The 3300 XL Proximity Probe and Extension Cable incorporate all of our latest technical advances. They are designed to minimize problems in the field and maximize probe performance and longevity.

Both the 3300 XL 8 mm Proximity Probe and the 3300 XL Extension Cable have the same part numbers as their predecessors and are direct replacements, both mechanically and electrically. They are fully compatible with 3300 and 3300 XL Proximitor Sensors and with existing 3300 Proximity Probes and Extension Cables.

The 3300 XL 8 mm Proximity Probe and Extension Cable include the following improvements over our previous proximity transducer systems:



- Our patented *TipLoc™* molding method keeps the polyphenylene sulfide (PPS) probe tip from twisting and vibrating and is now a standard feature on our 8 mm probes.

- The 3300 XL Probe is rated to seal out most gases and fluids at up to 690 kPa (100 psi) differential pressure between the probe tip and case.

- The 3300 XL Probe retains the patented 3300 *CableLoc™* feature. This design provides 334 N (75 pounds) pull strength where the probe lead attaches to the probe.

- Our *FluidLoc™* cable option prevents most fluids from migrating out of the machine through the triaxial cable, even if the cable jacket is nicked, scratched, or damaged. This prevents fluid, such as turbine oil, from leaking out of the machine via the probe or extension cable.

- New gold-plated *ClickLoc™* connectors are a standard feature on both 3300 XL probes and extension cables. The ClickLoc connectors have a positive locking feature that allows you to tighten the connectors *using only finger-tight force...no more special procedures to torque the connectors with wrenches!* This makes the transducer system more reliable by eliminating intermittent connections caused by loose connections between the probe and extension cable.

- Our new Connector Protector option allows you to purchase the probes and extension cables with Connector Protectors installed on the cable. Previously, Connector Protectors had to be installed on-site using a special tool. Having Connector Protectors installed prior to delivery can save critical installation time, while ensuring the best protection for the connector.

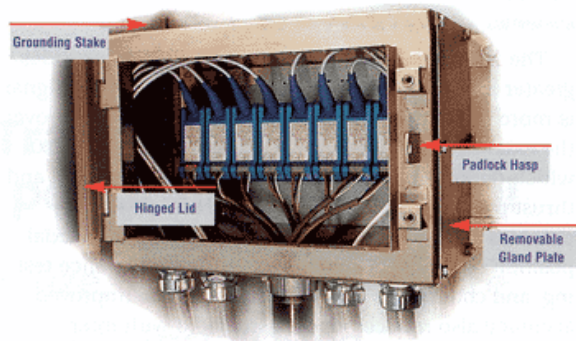
- The stainless steel armor is now welded to the probe case on our armored probes, making a stronger and more reliable connection with the probe body.

- A 3300 XL 8 mm smooth case probe is now part of our standard offering. Smooth case probes are particularly helpful when installing 5 or 9 metre integral cable probes (which do not require extension cables).

### New Proximitors® Housing

The unique design of the 3300 XL Proximitors Sensor required an innovative new housing. We developed the 3300 XL Proximitors Housing with these important features and benefits:

- *Housing meets stringent IP66 and Type 4X environmental ratings* for reliable protection of enclosed electronic equipment. These ratings meet or exceed environmental ratings usually specified for transducer housings worldwide.



- *304L stainless steel construction* resists impacts and corrosion for extra durability.

- *35 mm DIN rail option* allows you to mount up to 8 of the new 3300 XL Proximitors Sensors.

- *Removable gland plates* make it easier to drill, tap, and punch holes for fittings. The gland plates come in varying thicknesses to suit your needs.

- *A hinged cover*, with two easy-to-use, screw-type captive fasteners, provides easy access. The cover also comes with a padlock hasp to prevent unauthorized entry.

- *Four different types of fittings* are available to suit your installation needs - 316 stainless steel, brass, chrome-plated zinc, or aluminum fittings. Each comes with a locknut and O-ring to firmly tighten and seal the fitting into either tapped or untapped holes.

- The housing can be used in intrinsically safe hazardous area applications.

### 3300 XL...The New Standard

With its many significant improvements, the new 3300 XL Proximity Transducer System offers unparalleled performance and reliability. Increased accuracy, high-density mounting, improved immunity to RFI effects, and a more robust proximity probe all give the 3300 XL Proximity Transducer System the world's best performance at a low installed cost. With these benefits, the advanced 3300 XL Proximitors Sensor, Probe, and Extension Cable are the *new* standard. Insist upon 3300 XL components for your next machinery protection and management project. For more information, contact your nearest Bently Nevada Sales and Service representative. ☺